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EXAMINER

LEZAK, ARRIENNE M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2143 | |

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/851,727

Applicant(s)

LAW ET AL.

Examiner

Arrienne M. Lezak

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26,28-30 and 32-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26,28-30 and 32-35 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Examiner notes that Claims 1, 4, 6, 8, 9, 11, 13, 14, 17, 19, 21, 26, 30 & 34 have been amended, Claims 27 & 31 have been cancelled and no claims have been added. Claims not explicitly addressed herein are found to be addressed within prior Office Action dated 30 December 2005 as reiterated herein below.

Claim Rejections - 35 USC § 112

1. Claims 1, 9, 13 & 21 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Applicant has amended the claims to recite a “predetermined frequency band”, with support noted on p. 2 of Applicant’s specification, which support specifically recites the Bluetooth standard as operating in “the unlicensed Industrial-Scientific-Medical band at 2.4 GHz”, which Examiner will assume to be the “predetermined frequency band” enumerated by Applicant within the amended claims. As such, the rejection under 35 U.S.C. 112, first paragraph is hereby withdrawn under the specific interpretation provided within Applicant’s specification as noted herein.
2. Additionally, per Claim 13, Examiner finds no mention within the specification for “generating a first data packet and a second data packet”, thus removal of the same is required. Applicant relies upon p.11 of Applicant’s specification for support of the same. Noting p.11 of Applicant’s specification, Examiner finds a recitation of a synchronization packet followed by a data packet. Examiner acknowledges that a synchronization

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packet is obviously a specific form of data packet; however, Applicant's specification clearly relies upon the specific use of a synchronization packet to indicate that some other form of data packet will follow, thereby specifically distinguishing between the packet functionalities. As such, Examiner requires that the claims indicate this distinction in order to find support within the specification. Proper amendment is required.

3. Claim 13 is further rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, Examiner finds that Applicant is not clear as to which devices are responsible for which actions. It is unclear which device receives a signal, generates a data packet, and transmits the synchronization and data packets, thus proper correction is required. Examiner is not persuaded by Applicant's argument noting 35 U.S.C. § 112 "does not require that a method claim recite the entity or device that performs a particular step of a claim", (Applicant Amendment date 30 March 2006 – p. 11), noting MPEP § 2172.01, which requires Applicant to more specifically enumerate their invention, and which reads as follows:

2172.01 Unclaimed Essential Matter

A claim which omits matter disclosed to be essential to the invention as described in the specification or in other statements of record may be rejected under 35 U.S.C. 112, first paragraph, as not enabling. In re Mayhew, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). See also MPEP § 2164.08(c). Such essential matter may include missing elements, steps or necessary structural cooperative relationships of elements described by the applicant(s) as necessary to practice the invention. In addition, a claim which fails to interrelate essential elements of the invention as defined by applicant(s) in the specification may be rejected under 35 U.S.C. 112, second paragraph, for failure to

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point out and distinctly claim the invention. See *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976); *In re Collier*, 397 F.2d 1003, 158 USPQ 266 (CCPA 1968). >But see *Ex parte Nolden*, 149 USPQ 378, 380 (Bd. Pat. App. 1965) (“[I]t is not essential to a patentable combination that there be interdependency between the elements of the claimed device or that all the elements operate concurrently toward the desired result”); *Ex parte Huber*, 148 USPQ 447, 448-49 (Bd. Pat. App. 1965) (A claim does not necessarily fail to comply with 35 U.S.C. 112, second paragraph where the various elements do not function simultaneously, are not directly functionally related, do not directly intercooperate, and/or serve independent purposes.).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-24, 26, 29, 30, 32 & 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent US 6,356,945 B1 to Shaw in view of US Patent US 6,894,975 B1 to Partyka.

6. Regarding Claims 1, 5-9, 12-14, 18-21 & 32, Shaw discloses a transmit-only, (per pending Claims 1, 13, 14, 21 & 32), or receive only, (per pending Claim 9), apparatus and method comprising:

- a protocol stack including, (or excluding – per pending Claims 13 & 21) selected portions of the protocol used only for transmitting or only for receiving data, (Fig. 13; Col. 1, lines 13-67; Col. 2, lines 1-23; Col 19, lines 23-40 & Claims 1-26);

- configuring said transmit-only, (per pending Claims 1, 21 & 32), or receive-only, (per pending Claim 9), protocol stack in a respective transmit-only/receive-only wireless device for transmitting data, (Col. 23, lines 37-45); and
- a transceiver communicatively coupled to said protocol stack and configured to physically transmit or receive said data, (Fig. 13 & Col. 19, lines 23-40).

7. As noted herein, Shaw discloses a bandwidth manager capable of reconfiguring bandwidth for time-sharing upgradeability, (Col. 18, lines 39-56). Shaw, however, does not specifically enumerate a synchronization logic configured to synchronize data transmissions between said transmit-only apparatus and a second wireless apparatus by transmitting a synchronization packet, (per pending Claims 5, 12 & 18), prior to transmitting said data, said synchronization packet and said data being separated by a predetermined offset, said offset being usable by said second apparatus to identify said transmit-only apparatus, and wherein said protocol stack is configured to encapsulate said data in a packet and cause said transceiver to transmit said packet twice in succession, (at two different frequencies – per pending Claim 8), within a predetermined window of time, (per pending Claims 6 & 19), wherein the predetermined window of time is 8.33 msec, (per pending Claims 7 & 20).

8. Partyka discloses a synchronization logic configured to synchronize data transmissions, (Partyka - Abstract & Claims 1-24), between said transmit-only apparatus, (Partyka - Col. 3, lines 62-65), and a second wireless apparatus, (i.e.:

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receive-only device), by transmitting a synchronization packet prior to transmitting said data, (Col. 4, lines 32-67; Col. 5, lines 1-10; Col. 7, lines 9-67; Col. 8; & Col. 9, lines 1-25), said synchronization packet and said data being separated by a predetermined offset, said offset being usable by said second apparatus to synchronize data transmission between the transmitting and receiving devices, (per pending Claims 5, 12 & 18), (Col. 7, lines 9-67; Col. 8; & Col. 9, lines 1-25), wherein said protocol stack is configured to encapsulate said data in a packet and cause said transceiver to transmit said packet twice in succession, (per pending Claims 6 & 19), (at two different frequencies – per pending Claim 8), and wherein the predetermined window of time is 8.33 msec, (per pending Claims 7 & 20), (Col. 8, lines 21-41), (Examiner notes that per the teachings of Partyka, a transmission opportunity within a predetermined window of time obviously may be done any number of times, for any number of data packets, for any amount of time and at any number of frequencies/bands – wherein use of the specific (wireless) Bluetooth unlicensed Industrial-Scientific-Medical band at 2.4 GHz was well-known, (please see Marler herein below), and obvious to incorporate within the Shaw wireless communication system, (Shaw - Col. 22, lines 58-64).

9. Examiner further notes that as both Shaw, (Shaw – Claim 21), and Partyka, (Partyka - Col. 3, lines 62-65), disclose the enabling of a computing apparatus to exclusively transmit or receive or both, Shaw renders obvious Applicants transmit-only or receive-only protocol stack(s) and respective transceivers. Additionally, Examiner notes that Partyka clearly teaches time/frequency variances according to a time-frequency sequence that is unique for each transmitter and orthogonal with other

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transmitters, wherein the time-frequency variations from the transmission opportunities and for the beacons are related so that they can be developed from the same orthogonal sequence, thereby clearly and obviously requiring a priority determination based upon the unique time-frequency variations for a proper unified development of the orthogonal sequence, (Partyka – Col. 3, lines 5-67; Col. 4; & Col. 5, lines 1-51).

10. It would have been obvious to combine the teachings of Shaw and Partyka as noted within Shaw which teaches a need for an integrated process architecture which can accommodate communications, both transmission and retrieval, of information, (Shaw – Col. 1, lines 58-61), in light of that noted within Partyka which teaches network node synchronization as a means of improving communication, (Partyka – Col. 1, lines 7-19). Thus, Claims 1, 5-9, 12-14, 18-21 & 32 are found to be unpatentable in light of the combined teachings of Shaw in view of Partyka.

11. Regarding Claims 2, 3, 10, 15, 16, 22 & 23, Shaw in view of Partyka is relied upon for those teachings disclosed herein. Shaw further discloses an apparatus and method further comprising a wireless keyboard, (per pending Claims 2, 15 & 22), mouse, (per pending Claims 3, 16 & 23) or personal computer, (per pending Claim 10), enclosure within which said protocol stack and said transceiver could obviously be configured, (Col. 1, lines 13-22). Examiner notes that it would have been obvious to incorporate the transceiver [and Bluetooth technology] into any computer or computer peripheral device for wireless communication convenience. Thus, Claims 2, 3, 10, 15, 16, 22 & 23 are found to be unpatentable in light of the combined teachings of Shaw in view of Partyka.

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12. Regarding Claims 4, 11, 17 & 24, Shaw in view of Partyka is relied upon for those teachings disclosed herein. Shaw further discloses a data source capable of generating a data/packet, (per pending Claims 4, 17 & 24) as well as a data sink capable of processing said data/packet, (per pending Claim 11), (Shaw - Col. 19, lines 23-40; Col. 22, lines 58-64 & Col. 23, Lines 37-45). Additionally, Partyka clearly teaches the transmission of a synchronization packet followed by a data packet from a transmit-only device, (Partyka – Col. 3, lines 62-65; Col. 8, lines 21-67; & Col. 9, lines 1-2). Thus, Claims 4, 11, 17 & 24 are found to be unpatentable in light of the combined teachings of Shaw in view of Partyka.

13. Regarding Claims 26, 30 & 34, Shaw in view of Partyka is relied upon for those teachings disclosed herein. Partyka further discloses wherein the transmit-only devices, (per pending Claims 26 & 34), and/or the receive-only devices, (per pending Claims 30 & 34), use the predetermined offset to determine the apparatus ID, (per pending Claims 26 & 30), or the priority level of the data packet, (per pending Claims 27 & 31), (Col. 3, lines 6-67; Col. 4; & Col. 5, lines 1-51), (Examiner notes that Partyka clearly teaches a synchronized communication network capable of simultaneous node communication and variable data rate transmission, (Partyka – Col. 3, lines 44-56), wherein the transmission of multimedia data, (like that in Shaw), clearly and obviously calls for the ability to distinguish and prioritize data, (i.e.: asynchronous vs. isochronous). Thus, Claims 26, 30 & 34 are found to be unpatentable in light of the combined teachings of Shaw in view of Partyka.

14. Regarding Claim 29, Shaw in view of Partyka is relied upon for those teachings disclosed herein. Partyka further discloses wherein the receive-only apparatus is operable to periodically allocate a timing window for receiving at least one synchronization packet, (Col. 4, lines 32-52). Thus, Claim 29 is found to be unpatentable in light of the combined teachings of Shaw in view of Partyka.

15. Claims 25, 28, 33 & 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent US 6,356,945 B1 to Shaw in view of US Patent US 6,894,975 B1 to Partyka in further view of US Patent Pub. US 2002/0089548 A1 to Marler.

16. Regarding Claims 25, 28, 33 & 35, Shaw in view of Partyka is relied upon for those teachings disclosed herein. Though Shaw teaches wireless communication, (Col. 22, lines 58-64), Shaw does not specifically enumerate the use of Bluetooth technology. Marler discloses the use of Bluetooth wireless technology, (Marler – paragraph #0012). It would have been obvious to one of ordinary skill in the art at the time of invention by Applicant to incorporate the well-known Bluetooth wireless technology within the Shaw transmit/receive method as a means of transmitting and receiving information without the use of cumbersome wires, improving efficiency of electronic communication, (Shaw – Col. 1, lines 13-22). Examiner further notes that as Shaw discloses the enabling of a computing apparatus to exclusively transmit or receive, Shaw renders obvious Applicants transmit-only or receive-only protocol stack(s) and respective transceivers. Thus, Claims 25, 28, 33 & 35 are found to be unpatentable in light of the combined teachings of Shaw, Partyka and Marler.

Response to Arguments

17. Applicant's arguments filed 30 March 2006, have been fully considered but they are not persuasive. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

18. Applicant argues that modification of the Shaw protocol stack to not include selected portions of the Bluetooth protocol would render Shaw unsatisfactory for its intended purpose, and Examiner respectfully disagrees. Examiner strongly notes Applicant's own wording wherein Applicant notes that Shaw teaches, "being able to enable one of three modes of operation", (Amendment, p.9). Additionally, Examiner notes that Shaw requires, "means for enabling a selective group of said apparatus to be in receive-only, transmit-only, or transmit-and-receive mode", (Shaw, Claim 21). Thus, Examiner disagrees with Applicant's assertion that enabling one mode, (and thus disabling the other two modes), renders Shaw unsatisfactory, as Shaw clearly requires only one mode to be operational, and as such, Shaw is clearly and obviously able to be combined with the Bluetooth technology, (as taught by Marler), rendering Applicant's claims unpatentable. Additionally, Examiner notes that the combined teachings of Shaw, Partyka and Marler clearly and obviously render Applicant's invention unpatentable, as noted herein.

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19. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Applicant relies upon teachings within Partyka, which teachings are an enumeration of the art prior to Partyka, and as such are not relevant as they do not enumerate the aspects of Partyka invention relied upon. Instead, Applicant's citations specifically focus on the prior art disclosed by Partyka, which prior art is clearly labeled as such, (i.e.: Partyka – Figs. 1 & 2).

20. Additionally, Examiner notes that Applicant admits "Partyka discloses a frequency hopping network comprising a plurality of nodes, (Applicant's amendment dated 30 March 2006, p. 12). Moreover, Partyka specifically indicates that within a frequency-hopping network, the communication between nodes is accomplished by transmitting a modulated carrier and by periodically changing the frequency of the carrier. Therefore, Applicant's arguments regarding the same are not found to be persuasive, and Examiner maintains that proper motivation for combining the references is enumerated herein.

21. Applicant's argument regarding Partyka using predetermined offsets to "determine priority" is addressed herein above. Examiner notes however, that per

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Applicant's specification, priority is enumerated as "low, medium and high", which Examiner notes is different from sequential priority. At the same time however, Examiner notes that prioritizing data packets "low, medium and high" was well-known at the time of invention by Applicant and would have been obvious to incorporate within the Shaw/Partyka/Marler system for purposes of expediting sensitive data, (i.e.: smoke sensor (high priority) vs. motion detector (medium priority)).

22. Regarding Applicant's argument that the nodes within Partyka are not identified based on an offset, Examiner respectfully disagrees noting Applicant has relied on one specific embodiment, ignoring other embodiments that clearly read upon Applicant's claim language. Additionally, Examiner finds that it would have been obvious for the predetermined offset to identify the "transmit-only" apparatus, as Partyka clearly teaches a unique time-frequency sequence for transmission opportunities, (Partyka – Col. 3, lines 5-67; Col. 4; & Col. 5, lines 1-51).

23. Additionally, regarding Claims 25, 28, 33 & 35, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Examiner notes that a mere assertion is not enough, as Applicant needs to specifically enumerate those elements Applicant feels were not taught, suggested or disclosed by the cited references.

24. Thus, as Examiner has completely addressed Applicant's amendment, and finding Applicant's arguments do not show how the amendments avoid such references or objections, Examiner hereby rejects all claims in their entirety as noted herein above.

25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

26. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US Patent 4,528,661 B1 to Bahr.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arrienne M. Lezak whose telephone number is (571)-272-3916. The examiner can normally be reached on M-F 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571)-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Arrienne M. Lezak
Examiner
Art Unit 2143

AML



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